

What Is Claimed Is:

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1. A process for reclaiming fibers from a resinous fibrous product comprising the steps of:

5 (a) selecting an acid for use in an acid bath solution as a function of the type of resinous coating on the resinous fibrous product;

10 (b) inserting the resinous fibrous product into a washer/extractor machine, wherein said resinous fibrous product comprises a form including a strand form and a mat form;

15 (c) while said resinous fibrous product is in said machine, performing the steps of:

20 (i) introducing said resinous fibrous product to said acid bath solution heated to approximately 200 degrees Fahrenheit for a period of time sufficient to substantially remove a resinous residue from a fiber portion of the resinous fibrous product;

25 (ii) removing said acid bath solution and said resinous residue from said washer/extractor machine;

30 (iii) rinsing said fiber portion to remove any residual acid bath solution and resinous residue;

35 (d) removing said fiber portion from said washer/extractor machine; and

40 (e) dewatering said fiber portion.

2. The process of claim 1 further comprising the step of:

(iv) applying a sizing composition to
said fiber portion prior to the step of (d) removing
said fiber portion from said washer/extractor
machine.

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3. The process of claim 1 further
comprising the step of forming a fiberglass mat from
said fiber portion after the step of dewatering said
fiber portion.

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4. The process of claim 1, wherein the
step of (b) inserting the resinous fibrous product
within a washer/extractor machine comprises the step
of (b) inserting the resinous fibrous product within
15 a single chamber washer/extractor machine.

5. The process of claim 1, wherein the
step of (b) inserting the resinous fibrous product
within a washer/extractor machine comprises the step
20 of (b) inserting the resinous fibrous product within
an electronically controlled single chamber
washer/extractor machine

6. The process of claim 1, wherein the
25 step of (b) inserting the resinous fibrous product
within a washer/extractor machine comprises the step
of (b) inserting the resinous fibrous product within
a multi-chamber washer/extractor machine.

30 7. The process of claim 1, wherein the
step of (b) inserting the resinous fibrous product
within a washer/extractor machine comprises the step
of (b) inserting the resinous fibrous product within

an electronically controlled multi-chamber washer/extractor machine.

8. The method of claim 1, further
5 comprising the step of (f) drying said fiber portion
in an oven.

9. The method of claim 1, wherein the acid bath solution comprises said acid and a quantity of water in a ratio of between ten and fifty percent acid to water by volume.

10. The method of claim 1, wherein said resinous fibrous product comprises glass fibers.

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11. The method of claim 1, further comprising the steps of:

forming a slurry comprising said fibers and a binder; and

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forming a wet-process mat from said slurry.

12. The method of claim 12, wherein the step of forming said slurry is formed within said machine.

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13. A method for recovering a resinous residue from a resinous fibrous product that may be further processed into a usable nitrogen product comprising the steps of:

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selecting an acid for use in an acid bath solution as a function of the type of resinous coating on the resinous fibrous product;

inserting the resinous fibrous product within a washer/extractor machine, wherein the resinous fibrous product may be in the form of a plurality of strands or in the form of a mat;

5 introducing said resinous fibrous product
to said acid bath solution heated to approximately
200 degrees Fahrenheit for a period of time
sufficient to substantially remove the resinous
residue from a fibrous portion of the resinous
10 fibrous product;

removing said acid bath solution and said resinous residue from said washer/extractor machine;

introducing said acid bath solution and
said resinous residue into a cooling line to
15 precipitate said resinous residue; and
removing said precipitated resinous residue
from said acid bath solution using a clarifier.

14. The process of claim 13, wherein the
20 step of inserting the resinous fibrous product within
a washer/extractor machine comprises the step of
inserting the resinous fibrous product within a
single chamber washer/extractor machine.

25 15. The process of claim 13, wherein the
step of inserting the resinous fibrous product within
a washer/extractor machine comprises the step of
inserting the resinous fibrous product within an
electronically controlled single chamber
30 washer/extractor machine.

16. The process of claim 13, wherein the step of inserting the resinous fibrous product within

a washer/extractor machine comprises the step of inserting the resinous fibrous product within a multi-chamber washer/extractor machine.

5 17. The process of claim 13, wherein the step of inserting the resinous fibrous product within a washer/extractor machine comprises the step of inserting the resinous fibrous product within an electronically-controlled multi-chamber
10 washer/extractor machine.

15 18. A method for reclaiming fibrous and a resinous residue from a resinous fibrous product in the form of a strand or a mat comprising the steps of:

selecting an acid for use in an acid bath solution as a function of the type of resinous coating on the resinous fibrous product;
inserting the resinous fibrous product
20 within a washer/extractor machine;

introducing said resinous fibrous product to said acid bath solution heated to approximately 200 degrees Fahrenheit for a period of time sufficient to substantially remove the resinous
25 residue from a fibrous portion of the resinous fibrous product;

removing said acid bath solution and said resinous residue from said washer/extractor machine;
rinsing said fibrous portion to remove any
30 residual acid bath solution and resinous residue;
removing said fibrous portion from said washer/extractor machine;

dewatering said fibrous portion;

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introducing said acid bath solution and
said resinous residue into a cooling line to
precipitate said resinous residue; and
removing said precipitated resinous residue
5 from said acid bath solution using a clarifier.

19. The process of claim 18, wherein the
step of inserting the resinous fibrous product within
a washer/extractor machine comprises the step of
10 inserting the resinous fibrous product within an
electronically-controlled single-chamber
washer/extractor machine

20. The process of claim 18, wherein the
15 step of inserting the resinous fibrous product within
a washer/extractor machine comprises the step of
inserting the resinous fibrous product within a
multi-chamber washer/extractor machine.

20 21. The process of claim 18, further
comprising the step of drying said fibrous portion in
an oven.

22. The process of claim 18, further
25 comprising the step of applying a sizing composition
to said fibrous portion prior to the step of removing
said fibrous portion from said washer/extractor
machine.

30 23. The process of claim 18, wherein said
acid bath solution comprises said acid and a quantity
of water in a ratio of between ten and fifty percent
acid to water by volume.

24. The process of claim 23, wherein said acid is phosphoric acid.

5 25. The process of claim 18 further comprising the step of forming a fibrous mat from said fibrous portion after the step of dewatering said fibrous portion.

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